

THAT WHICH IS CLAIMED IS:

1 1. A system for providing a network adapter for one or more
2 access points in a local area network environment, comprising:
3 means for connecting said one or more access points to a wired
4 network;
5 means for connecting said one or more access points to a
6 wireless network;
7 means for enforcing a managed network environment; and
8 means for communicating with a network control server.

1 2. A system as recited in claim 1, wherein said means for
2 connecting to a wired network further comprises a wireline network
3 interface.

1 3. A system as recited in claim 1, wherein said means for
2 connecting to a wireless network further comprises a wireless
3 network interface.

1 4. A system as recited in claim 3 wherein said wireless network
2 interface is coupled to a wireless access point.

1 5. A system as recited in claim 4 wherein said wireless access
2 point further comprises an 802.11 type access point.

1 6. A system as recited in claim 4 wherein said wireless access

2 point further comprises a Bluetooth type access point.

1 7. A system as claimed in claim 3 wherein said wireless network
2 interface is coupled to a Local Area Network (LAN) port.

1 8. A system as recited in claim 1 wherein said means for
2 enforcing a managed network environment further comprises an
3 augmented IP stack.

1 9. A system as recited in claim 8 wherein said augmented IP stack
2 includes a Mobile IP Foreign Agent.

1 10. A system as recited in claim 8 wherein said augmented IP stack
2 detects and handles packets corresponding to a plurality of network
3 services.

1 11. A system as recited in claim 1 wherein said means for
2 communicating further comprises network coordination software.

1 12. A system as recited in claim 1 wherein said network adapter
2 includes a plurality of wireline network interfaces.

1 13. A system as recited in claim 1 wherein said network adapter
2 includes a plurality of wireless network interfaces.

1 14. A system as recited in claim 1 wherein said network adapter is

2 coupled to a switch and said switch is coupled to a plurality of
3 short-range wireless access points.

1 15. A system as recited in claim 14 wherein said switch is
2 programmable to automatically forward all inbound packets from
3 wireless access point LAN segments to a segment containing said
4 network adapter.

1 16. A system as recited in claim 14 wherein said switch is
2 programmable to automatically forward all packets not originating
3 from a LAN segment containing the network adapter and destined to
4 an access point segment, to the LAN segment containing said network
5 adapter.

1 17. A system as recited in claim 14 wherein the access points or
2 wireless clients are programmed to forward all packets to said
3 network adapter.

1 18. A system as recited in claim 1 wherein said network control
2 server is co-located with said network adapter.

1 19. A system as recited in claim 1 wherein said network control
2 server is co-located with a Core Server.

1 20. A system as recited in claim 1 wherein said network control
2 server is co-located with a Routing Coordinator.

1 21. A system as recited in claim 1 wherein said network adapter
2 further comprises at least one of a stand-alone personal computer
3 (PC) and a special purpose computing machine.

1 22. A system as recited in claim 1 wherein said network adapter
2 further comprises software stored within said one or more access
3 points.

1 23. A system as recited in claim 1 wherein said network control
2 server is distributed over said wired network.

1 24. A system as recited in claim 1 wherein said network adapter is
2 connectable to one or more access points located on a plurality of
3 LAN segments.

1 25. A system as recited in claim 1 wherein said network adapter is
2 connectable to different wireless LANs.

1 26. A system as recited in claim 1 wherein said network adapter is
2 co-located with at least one of a Handoff Management Point, a Home
3 Address Masquerader and a Foreign Address Masquerader.

1 27. A method for providing a network adapter for a plurality of
2 access points in a local area network environment, comprising the
3 steps of:

4 connecting said access points to a wired network;
5 connecting said access points to a wireless network;
6 enforcing a managed network environment; and
7 communicating with a Network Control Server.

1 28. A method as recited in claim 27 wherein the step of enforcing
2 a managed network environment further comprises the steps of:
3 receiving packets from a wireline network;
4 processing said packets through an augmented IP stack;
5 determining whether to rewrite said packets; and
6 forwarding said packets to said wireless network.

1 29. A method as recited in claim 28, further comprising, prior to
2 the step of forwarding said packets to said wireless network, the
3 step of determining whether to filter said packets.

1 30. A method as recited in claim 27 wherein the step of enforcing
2 a managed network environment further comprises the steps of:
3 receiving packets from a wireless network;
4 processing said packets through an augmented IP stack; and
5 forwarding said packets to a wireline network.

1 31. A method as recited in claim 30, wherein said step of
2 processing further comprises, prior to the step of forwarding, the
3 steps of:

4 determining whether to filter said packets; and
5 determining whether to rewrite said packets.

1 32. A method as recited in claim 31, further comprising the steps
2 of:
3 detecting packets corresponding to a plurality of network
4 services via said augmented IP stack; and
5 handling said packets.

1 33. A method as recited in claim 27, further comprising the step
2 of determining an access point currently associated with a mobile
3 client by inspecting a media access control (MAC) address
4 associated with packets transmitted by the mobile client.